

# Service Building Survey for the BPM Upgrade

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# Issues to Consider

- Space
- Power
- Networking
- Cables
- Cooling
- Clock Signals
- Other

# Power and Cooling

- Power does not appear to be a problem as all racks are supplied with 20 amp circuits.
- Cooling should not be a problem as the rack are located in air conditioned rooms.
- There is on exception at F1 where the Pbar cables are located in a rack outside the electronics room.

# Networking

- This does not appear to be a problem as all buildings have between 5-17 free ports.
- We do not know if the unused ports are active.

# Cables

- Cable Rack locations have been recorded in an Excel spreadsheet.
- Cable routing has also been recorded on rack layout drawings.

# Space

- Tev BPM racks have no space problem if equipment is replaced.
- Most MR BPM rack have plenty of space with the exception of E1, F1 & F2.
- MR BPM racks in F2-F4 are Currently used.
- All buildings except A1, A3, B0, C1, E1, F1, & F2 have space to add a rack.
- The top space of the racks adjacent to the Tev racks is usable for cables.

# Other Signals

- We need to get a count of the available clock ports now that we better understand the clock system.
- We found connections to the front panels of the BPM modules in 6 buildings.

# Summary

- Problem buildings are F1 and E1, the racks in these buildings are very full.
- Working documents and ~300 pictures are at:  
www-cdserver.fnal.gov/cd\_fnal/cep/ese/BPM/Survey/
- The finished documents will be linked from the main Tevatron BPM and BLM Upgrade Project page: [projects.fnal.gov/tevbpm/](http://projects.fnal.gov/tevbpm/)